



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,598	02/16/2001	Thomas Thaler	700-212RP	4386

22191 7590 01/31/2007  
GREENBERG TRAURIG, LLP  
1750 TYSONS BOULEVARD, 12TH FLOOR  
MCLEAN, VA 22102

EXAMINER
----------

FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
----------	--------------

2616

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	01/31/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 01/31/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

kinneyb@gtlaw.com  
goepelj@gtlaw.com  
feronys@gtlaw.com

20

<b>Office Action Summary</b>	<b>Application No.</b> 09/785,598	<b>Applicant(s)</b> THALER ET AL.	
	<b>Examiner</b> Derrick W. Ferris	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 January 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-13,15-18 and 20-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 5-13, 15, 17, 18, and 20-24 is/are rejected.
- 7) ☒ Claim(s) 3,4 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. **Claims 1, 3-13, 15-18, 20-24** as amended are still in consideration for this application.
2. Examiner does **not withdraw** the corresponding obviousness rejection(s) to *Thomson Multimedia/Straub*. In particular, applicant argues that distance as taught by *Thomson/Straub* with respect to e.g., the number of repeater portals e.g., col. 2, lines 28-33 and column 9, lines 33-40 is not analogous to propagation delay. The examiner respectfully disagrees. In particular, since the signal propagates a certain number of portals, a delay is incurred. In addition, applicant admits that a number of hops is a delay with respect to “a number of nodes on the path in-between”, see applicant’s specification at page 5, lines 10-17. With respect to signal conversion, further see e.g., column 7 of *Thomson/Straub* with respect to the transmission of the clock signal. The examiner further acknowledges the allowability of claim 3 with respect to tracking the propagation delay.
3. The examiner **withdraws** the obviousness rejection to *Frouin* in view of *Hulyalkar*. The examiner notes that it would appear that the references explicitly teach that the conversion of the signal is due to clock drifts with respect to using different crystals, see e.g., column 5, lines 23-29 of *Hulyalkar*.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. **Claims 1, 5-10, 13, 15, 17, 18, and 20-24** are rejected under 35 U.S.C. 102(a) as being anticipated by WO 99/55028 to “*Thomson Multimedia*”.

*Please note that the following rejection below references the child U.S. Patent 6,914,895 B1 to Straub et al. since the child application is printed in English. As such, please see any column, line references with respect to the U.S. Patent.*

As to **claim 1**, generating a network-wide time signal using a reference time generator is taught as network wide synchronization, see e.g., column 4, lines 7-42. Distributing the network-wide signal from a first node to a first segment of the network having a plurality of nodes is taught e.g., as 1394 bus 1 in figure 1. Distributing the network-wide signal to a first bridge portal is taught e.g., as WL1 (e.g., the “cycle server”). Distributing the network-wide time signal from a second bridge portal to a second segment of the network having a plurality of nodes is taught e.g., as segment 2 or 3 and column 11, lines 1-2. Converting, at each respective node, the network wide-time signal to a local synchronization signal is taught e.g., as slaving a clock, see e.g., column 7, lines 1-30. Wherein the network-wide time signal is distributed in at least said first network segment using a network-inherent synchronization event along with a lower-order time, with a bridge synchronizing the network-inherent synchronization event between said first and second bridge portals, and wherein a high-order time is distributed to the network is taught e.g., as distributing the transmission of frequency and transmission of clock signal) separately across the network, see .g., column 7, lines 30-67. With respect to propagation delay, see e.g., column 5, lines 27-40 and column 9, lines 33-39 with respect to distance (i.e., propagation delay).

As to **claim 5**, the network-wide signal is a house synchronization signal.

As to **claim 6**, see e.g., column 6, lines 35-67 with respect to frequency.

As to **claim 7**, with respect to phase locking the signal, see e.g., column 8..

As to **claims 8-9**, using a phase lock loop is part of delay compensation, see e.g., column 8.

As to **claim 10**, see e.g., column 3, lines 60-64 with respect to supporting the IEEE 1394 standard.

As to **claim 13**, see similar rejection to claim 1.

As to **claim 15**, see e.g., column 4, lines 9-25 with respect to network cycle master signal.

As to **claim 17**, see similar rejection to claim 10.

As to **claim 18**, see similar rejection to claim 1.

As to **claims 20, 21 and 22**, see similar rejection to claim 10.

As to **claim 23**, see e.g., column 7, lines 30-36 with respect to bus time.

As to **claim 24**, since a phase lock look is used the signals overlap.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2616

7. **Claims 11 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/55028 to “*Thomson Multimedia*” in view of “Application Critical Parameters for Rubidium Standards” to (“*Weidemann*”).

In making a proper obviousness rejection under MPEP 706.02(j), the examiner will address the following four steps:

- a) *the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line numbers where appropriate;*
- b) *the difference of differences in the claim(s) over the applied cited references;*
- c) *the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter; and*
- d) *an explanation why one skilled in the art at the time of the invention was made would have been motivated to make the proposed modification.*

As such to **claim 11**, for step (a) *Thomson Multimedia* discloses limitations in the base claim.

For step (b) *Thomson Multimedia* is silent or deficient to the further limitation wherein the step of generating the network wide time signal includes the step of utilizing a rubidium reference signal generator. In particular, *Thomson Multimedia* discloses using a frequency but may be silent or deficient to further using a rubidium reference signal generator, see e.g., column 8, lines 5-35.

*Weidemann* teaches the further recited limitation above at e.g., in the summary on page 87.

For step (c), the proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Thomson Multimedia* to clarify that an oscillator is a rubidium oscillator.

In order to establish a prima facie case of obviousness for step (d), three basic criteria must be met. The three criteria according to MPEP 706.02(j) are as follows:

*First there must be some suggestion or modification, either in the reference(s) themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.*

As such, for step (d) examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the further limitation wherein the step of generating the network wide time signal includes the step of utilizing a rubidium reference signal generator. In particular, the motivation for modifying the reference or to combine the reference teachings would be to provide highly reliable clocking source. In particular, *Weidemann* cures the above-cited deficiency by providing a motivation found at e.g., in the summary on page 87. Second, there would be a reasonable expectation of success since using rubidium oscillators is well known in the art as a clocking source.

As to **claim 12**, examiner notes a similar rejection as claim 11 where *Weidemann* also teaches using GPS as taught in the summary on page 87 (i.e., GPS provides a long term reference for Rb clocks). In particular, one skilled in the art would be motivated to use GPS since it would be expensive to deploy a rubidium clock at every site such that each site can get their clocking from one central source via GPS.

*Allowable Subject Matter*

8. **Claims 3, 4, and 16** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571)272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



DWF

Derrick W. Ferris  
Examiner  
Art Unit 2616



**DERRICK W. FERRIS**  
**PRIMARY PATENT EXAMINER**